

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018962**Date Inspected:** 14-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhao Chen Sun**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** TOWER Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY#10

**SOUTH TOWER LIFT-5**

This QA Inspector observed the following work not in compliance:

**Description of Incident:**

During the Caltrans Quality Assurance (QA) in-process observation on South tower lift-5 Cover plate, this QA Inspector discovered the following issue:

- ZPMC personnel welding the non-compliable cover plates to south shaft on skin 'E'.
- As per the shop drawing the required length of the cover plate is 151.4 mm.
- But length of the cover plate measured to be approximately 212 mm.
- Welds are fillet welds joining cover plate to skin 'E'.
- The weld designations are SSD1-TL5-1E/F#15; 16; 17; 18.
- This component located at fabrication Bay#11.

Applicable reference:

Approved Shop Drawing: "SSD1-TL5-1E-F".

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For further information see attached pictures:

### EAST TOWER LIFT-5

This QA Inspector observed the following work not in compliance:

#### Description of Incident:

During the Caltrans Quality Assurance (QA) in-process observation on East tower lift-5 Cover plate, this QA Inspector discovered the following issue:

- ZPMC personnel welding the non-compliable cover plates to east shaft on skin 'E'.
- As per the shop drawing the required length of the cover plate is 151.4 mm.
- But length of the cover plate measured to be approximately 212 mm.
- Welds are fillet welds joining cover plate to skin 'E'.
- The weld designations are ESD1-TL5-2F/F#13; 14; 15; 16.
- This component located at fabrication Bay#11.

#### Applicable reference:

Approved Shop Drawing: "ESD1-TL5-2F-F".

For further information see attached pictures:

### BAY#11

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007770

#### Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as TOWER Component. The weld designation reviewed as follows:

#### WEST TOWER – LIFT-4 SKIN 'A' STEP PLATE

WSD1 – FASA4 – 2A/E – 70

#### EAST TOWER – LIFT-4 FAÇADE CONNECTION PLATE

WSD1 – FASA4 – 2C/E – 5~10

WSD1 – FASA4 – 2B/E – 16; 30; 21~24

WSD1 – FASA4 – 2A/C – 82; 86; 87

WSD1 – FASA4 – 2C/D – 21; 22; 36

WSD1 – FASA4 – 2D/F – 08; 09

WSD1 – FASA4 – 2E/F – 01; 02

WSD1 – FASA4 – 2B/F – 17

WSD1 – FASA4 – 2C/F – 06

This QA Inspector observed the following work in progress

#### Shielded Metal Arc Welding (SMAW):

Weld joint # 23B located on Lift-5 bracket SD1 – BRSA5 – 1. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply

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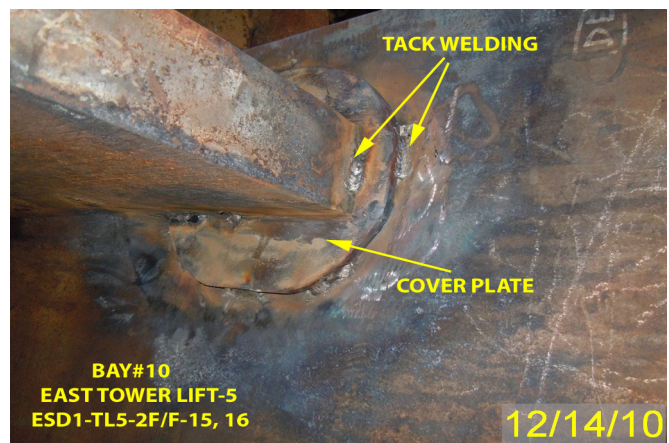
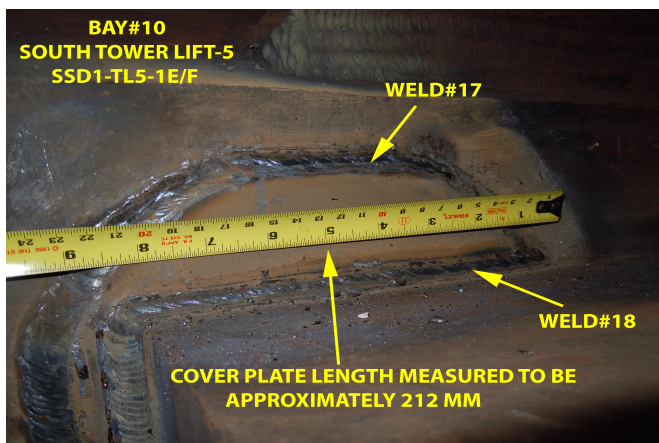
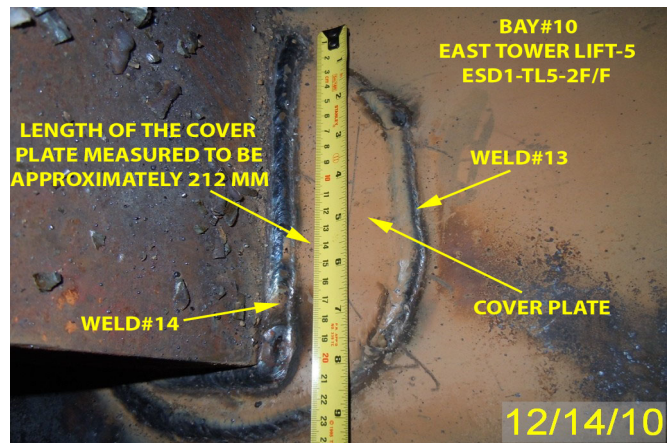
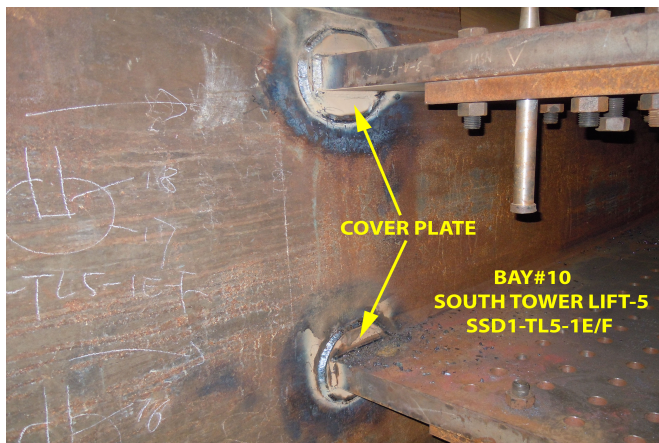
with the WPS – B – T – 3212 – B – U4b.

Weld joint # 20B located on Lift-5 bracket ND1 – BRSA5 – 2. Welder is identified as 040724. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 – B – U4b.

Weld joint # 22B located on Lift-5 bracket SD1 – BRSA5 – 1. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 – B – U4b.

Weld joint # 23B located on Lift-5 bracket ND1 – BRSA5 – 2. Welder is identified as 040724. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 – B – U4b.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

No Relevant Conversations.

## Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho- 15002048250, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Sandeep	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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